

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Blake Pepinsky et al.

Docket No.: 14937.0059

Filed: March 16, 2004

Issued: November 4, 2008

Serial No.: 10/802,540

Patent No.: 7,446,173 B2

For: *POLYMER CONJUGATES OF INTERFERON BETA-1A AND USES*

ATTN: Certificate of Correction Branch
United States Patent and Trademark Office
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Certificate
DEC 19 2008
of Correction


REQUEST FOR EXPEDITED ISSUANCE OF CERTIFICATE OF CORRECTION
PURSUANT TO 37 C.F.R. 1.322

Applicants respectfully request that a Certificate of Correction be issued to correct the omission of SEQ ID NOs: 41-56 of the above-mentioned patent. The omission of SEQ ID NOs: 41-56 was incurred by the U.S. Patent and Trademark Office. A Supplemental Preliminary Amendment filed on August 18, 2006 provided a substitute sequence listing which included SEQ ID NOs: 41-56. The substitute sequence listing was entered by the USPTO on August 22, 2006. Applicants herein submit a copy of the filed Supplemental Preliminary Amendment as Exhibit A. A copy of the Entered Raw Sequence Listing is provided as Exhibit B. A Certificate of Correction form, PTO/SB/44 is also submitted herewith.

Applicants do not believe that any fees are due with the filing as the error in the claims was incurred by the USPTO. However, should any fees be required by this request, the Commissioner is hereby authorized to charge Deposit Account **19-4293**.

Respectfully submitted,

Date: 12-17-08


Harold H. Fox
Reg. No. 41,498

Steptoe & Johnson LLP
1330 Connecticut Avenue, NW
Washington, DC 20036-1795
Phone: 202-429-3000
Fax: 202-429-3902

DEC 19 2008

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 7,446,173 B2
APPLICATION NO. : 10/802,540
ISSUE DATE : NOVEMBER 4, 2008
INVENTOR(S) : PEPINSKY ET AL.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 63, line 35, insert the following SEQ ID NOs: 41-56:

--

<210> 41
<211> 166
<212> PRT
<213> Homo sapiens

<400> 41

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110

Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160

Thr Gly Tyr Leu Arg Asn
165

MAILING ADDRESS OF SENDER:

PATENT NO. 7,446,173 B2

Steptoe & Johnson LLP
1330 Connecticut Avenue, NW
Washington DC 20036-1795

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APPLICATION NO. : 10/802,540
ISSUE DATE : NOVEMBER 4, 2008
INVENTOR(S) : PEPINSKY ET AL.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> 42
<211> 166
<212> PRT
<213> Homo sapiens

<400> 42

Met Ala Tyr Ala Ala Leu Gly Ala Leu Gln Ala Ser Ser Asn Phe Gln
1 5 10 15
Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30
Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45
Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60
Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80
Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95
His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110
Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125
Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140
Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160
Thr Gly Tyr Leu Arg Asn
165

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ISSUE DATE : NOVEMBER 4, 2008
INVENTOR(S) : PEPINSKY ET AL.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> 43
<211> 166
<212> PRT
<213> Homo sapiens

<400> 43

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Ala Ala
1 5 10 15

Cys Ala Ala Leu Leu Ala Ala Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110

Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160

Thr Gly Tyr Leu Arg Asn
165

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INVENTOR(S) : PEPINSKY ET AL.

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<210> 44
<211> 166
<212> PRT
<213> Homo sapiens

<400> 44

Met	Ser	Tyr	Asn	Leu	Leu	Gly	Phe	Leu	Gln	Arg	Ser	Ser	Asn	Phe	Gln
1				5					10					15	
Cys	Gln	Lys	Leu	Leu	Trp	Gln	Leu	Asn	Gly	Arg	Ala	Ala	Ala	Cys	Ala
			20					25						30	
Ala	Asp	Arg	Met	Asn	Phe	Asp	Ile	Pro	Glu	Glu	Ile	Lys	Gln	Leu	Gln
			35				40					45			
Gln	Phe	Gln	Lys	Glu	Asp	Ala	Ala	Leu	Thr	Ile	Tyr	Glu	Met	Leu	Gln
			50				55				60				
Asn	Ile	Phe	Ala	Ile	Phe	Arg	Gln	Asp	Ser	Ser	Ser	Thr	Gly	Trp	Asn
65					70					75					80
Glu	Thr	Ile	Val	Glu	Asn	Leu	Leu	Ala	Asn	Val	Tyr	His	Gln	Ile	Asn
			85						90					95	
His	Leu	Lys	Thr	Val	Leu	Glu	Glu	Lys	Leu	Glu	Lys	Glu	Asp	Phe	Thr
			100					105						110	
Arg	Gly	Lys	Leu	Met	Ser	Ser	Leu	His	Leu	Lys	Arg	Tyr	Tyr	Gly	Arg
			115				120					125			
Ile	Leu	His	Tyr	Leu	Lys	Ala	Lys	Glu	Tyr	Ser	His	Cys	Ala	Trp	Thr
			130				135					140			
Ile	Val	Arg	Val	Glu	Ile	Leu	Arg	Asn	Phe	Tyr	Phe	Ile	Asn	Arg	Leu
145					150					155					160
Thr	Gly	Tyr	Leu	Arg	Asn										
					165										

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> 45
<211> 166
<212> PRT
<213> Homo sapiens

<400> 45

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15
Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30
Lys Asp Arg Ala Ala Phe Ala Ile Pro Ala Glu Ile Lys Gln Leu Gln
35 40 45
Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60
Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80
Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95
His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110
Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125
Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140
Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160
Thr Gly Tyr Leu Arg Asn
165

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INVENTOR(S) : PEPINSKY ET AL.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> 46
<211> 166
<212> PRT
<213> Homo sapiens

<400> 46
Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15
Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30
Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Ala Ala Ala Ala
35 40 45
Ala Phe Ala Ala Ala Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60
Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80
Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95
His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110
Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125
Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140
Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160
Thr Gly Tyr Leu Arg Asn
165

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<210> 47
<211> 166
<212> PRT
<213> Homo sapiens

<400> 47
Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15
Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30
Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45
Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Ala
50 55 60
Asn Ile Ala Ser Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80
Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95
His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110
Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125
Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140
Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160
Thr Gly Tyr Leu Arg Asn
165

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INVENTOR(S) : PEPINSKY ET AL.

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<210> 48
<211> 166
<212> PRT
<213> Homo sapiens

<400> 48
Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15
Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30
Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45
Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60
Asn Ile Phe Ala Ile Phe Ala Ala Ala Ser Ser Ser Thr Gly Trp Asn
65 70 75 80
Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95
His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110
Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125
Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140
Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160
Thr Gly Tyr Leu Arg Asn
165

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ISSUE DATE : NOVEMBER 4, 2008
INVENTOR(S) : PEPINSKY ET AL.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> 49
<211> 166
<212> PRT
<213> Homo sapiens

<400> 49

Met	Ser	Tyr	Asn	Leu	Gly	Phe	Leu	Gln	Arg	Ser	Ser	Asn	Phe	Gln
1			5				10					15		
Cys	Gln	Lys	Leu	Leu	Trp	Gln	Leu	Asn	Gly	Arg	Leu	Glu	Tyr	Cys
	20					25						30		Leu
Lys	Asp	Arg	Met	Asn	Phe	Asp	Ile	Pro	Glu	Glu	Ile	Lys	Gln	Leu
	35					40					45			Gln
Gln	Phe	Gln	Lys	Glu	Asp	Ala	Ala	Leu	Thr	Ile	Tyr	Glu	Met	Leu
	50				55					60				Gln
Asn	Ile	Phe	Ala	Ile	Phe	Arg	Gln	Asp	Ser	Ser	Ser	Thr	Gly	Trp
65				70					75					80
Ala	Ser	Ile	Val	Ala	Ala	Leu	Leu	Ser	Asn	Val	Tyr	His	Gln	Ile
			85					90					95	Asn
His	Leu	Lys	Thr	Val	Leu	Glu	Glu	Lys	Leu	Glu	Lys	Glu	Asp	Phe
	100						105					110		Thr
Arg	Gly	Lys	Leu	Met	Ser	Ser	Leu	His	Leu	Lys	Arg	Tyr	Tyr	Gly
	115						120					125		Arg
Ile	Leu	His	Tyr	Leu	Lys	Ala	Lys	Glu	Tyr	Ser	His	Cys	Ala	Trp
	130				135					140				Thr
Ile	Val	Arg	Val	Glu	Ile	Leu	Arg	Asn	Phe	Tyr	Phe	Ile	Asn	Arg
145				150					155					160
Thr	Gly	Tyr	Leu	Arg	Asn									
			165											

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ISSUE DATE : NOVEMBER 4, 2008
INVENTOR(S) : PEPINSKY ET AL.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> 50
<211> 166
<212> PRT
<213> Homo sapiens

<400> 50
Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15
Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30
Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45
Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60
Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80
Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Ala His Gln Ile Ala
85 90 95
His Leu Ala Ala Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110
Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125
Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140
Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160
Thr Gly Tyr Leu Arg Asn
165

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ISSUE DATE : NOVEMBER 4, 2008
INVENTOR(S) : PEPINSKY ET AL.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> 51
<211> 166
<212> PRT
<213> Homo sapiens

<400> 51
Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15
Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30
Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45
Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60
Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80
Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95
His Leu Lys Thr Val Leu Ala Ala Lys Leu Ala Ala Ala Asp Phe Thr
100 105 110
Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125
Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140
Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160
Thr Gly Tyr Leu Arg Asn
165

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INVENTOR(S) : PEPINSKY ET AL.

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<210> 52
<211> 166
<212> PRT
<213> Homo sapiens

<400> 52
Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15
Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30
Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45
Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60
Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80
Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95
His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Ala Ala Thr
100 105 110
Ala Gly Lys Ala Met Ser Ala Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125
Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140
Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160
Thr Gly Tyr Leu Arg Asn
165

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<210> 53
<211> 166
<212> PRT
<213> Homo sapiens

<400> 53

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110

Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Ala
115 120 125

Ile Ala Ala Tyr Leu Ala Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160

Thr Gly Tyr Leu Arg Asn
165

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<210> 54
<211> 166
<212> PRT
<213> Homo sapiens

<400> 54

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110

Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125

Ile Leu His Tyr Leu Lys Ala Ala Ala Tyr Ser His Cys Ala Trp Thr
130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160

Thr Gly Tyr Leu Arg Asn
165

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ISSUE DATE : NOVEMBER 4, 2008
INVENTOR(S) : PEPINSKY ET AL.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> 55
<211> 166
<212> PRT
<213> Homo sapiens

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Thr Gly Tyr Leu Arg Asn
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MAILING ADDRESS OF SENDER:

PATENT NO. 7,446,173 B2

Steptoe & Johnson LLP
1330 Connecticut Avenue, NW
Washington DC 20036-1795

DEC 19 2008

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 7,446,173 B2
APPLICATION NO. : 10/802,540
ISSUE DATE : NOVEMBER 4, 2008
INVENTOR(S) : PEPINSKY ET AL.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

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<212> PRT
<213> Homo sapiens

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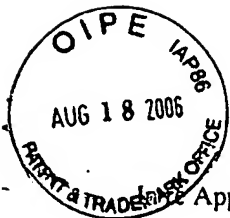
MAILING ADDRESS OF SENDER:

PATENT NO. 7,446,173 B2

Steptoe & Johnson LLP
1330 Connecticut Avenue, NW
Washington DC 20036-1795

DEC 19 2008

Exhibit A



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Pepinsky et al.

Serial No: 10/802,540

Filed: March 16, 2004

For: *Polymer Conjugates of Interferon Beta-1a
and Uses*

Examiner: Not yet known

Art Unit: 1646

Confirmation No.: 4023

Atty Docket No.: BII-008.02

CERTIFICATE OF FIRST CLASS MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail, in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 16, 2006.


Merlin Aubourg

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL PRELIMINARY AMENDMENT

Dear Sir:

Prior to substantive examination of the above-referenced patent application, please amend the application as follows:

In the Claims:

1-40. (canceled)

41. (currently amended) A composition comprising a glycosylated interferon-beta-1a comprising the amino acid sequence set forth in any one of SEQ ID NOs: 27-[[40]]56 coupled to a non-naturally-occurring polymer at an N-terminal end of said glycosylated interferon-beta-1a, said polymer comprising a polyalkylene glycol moiety.
42. (previously presented) The composition of claim 41, wherein the polyalkylene moiety is coupled to the interferon-beta by way of a group selected from an aldehyde group, a maleimide group, a vinylsulfone group, a haloacetate group, plurality of histidine residues, a hydrazine group and an aminothioli group.
43. (currently amended) The composition of claim 41, wherein the interferon-beta-1a of any one of SEQ ID NOs: 27-[[40]]56 is an interferon-beta-1a fusion protein.
44. (previously presented) The composition of claim 43, wherein the interferon-beta-1a fusion protein comprises a portion of an immunoglobulin molecule.
45. (currently amended) A physiologically active interferon-beta composition comprising a physiologically active interferon-beta-1a comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 27-[[40]]56, coupled to a polymer comprising a polyalkylene glycol moiety, wherein the interferon -beta-1a is coupled to the polymer at a site on the interferon-beta-1a that is an N- terminal end, wherein the physiologically active interferon -beta 1a and the polyalkylene glycol moiety are arranged such that the physiologically active interferon-beta-1a in the physiologically active interferon -beta composition has an activity at least 2-fold greater relative to physiologically active interferon-beta-1b, when measured by an antiviral assay.
46. (previously presented) The composition of claim 45, wherein the interferon-beta-1a is coupled to the polymer at a site by way of a glycan moiety of the interferon-beta-1a.
47. (previously presented) The composition of claim 45, wherein the interferon-beta-1a is an interferon-beta-1a fusion protein.
48. (previously presented) The composition of claim 47, wherein the interferon-beta-1a fusion protein comprises a portion of an immunoglobulin molecule.
49. (currently amended) A physiologically active interferon-beta composition comprising a physiologically active glycosylated interferon-beta-1a comprising an amino acid sequence

selected from the group consisting of SEQ ID NO: 27-[[40]]56, N-terminally coupled to a polymer comprising a polyalkylene glycol moiety, wherein the physiologically active interferon-beta-1a and the polyalkylene glycol moiety are arranged such that the physiologically active interferon-beta 1a in the physiologically active interferon-beta composition has equal activity relative to physiologically active interferon-beta lacking said moiety, when measured by an antiviral assay.

50. **(previously presented)** The composition of claim 49, wherein the interferon-beta is coupled to the polymer at a site by way of a glycan moiety on the interferon-beta.
51. **(previously presented)** The composition of claim 49, wherein the interferon-beta-1a is an interferon beta fusion protein.
52. **(previously presented)** The composition of claim 51, wherein the interferon beta fusion protein comprises a portion of an immunoglobulin molecule.
53. **(currently amended)** A stable, aqueously soluble, conjugated interferon-beta-1a complex comprising a interferon-beta-1a comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 27-[[40]]56, N-terminally coupled to a polyethylene glycol moiety, wherein the interferon-beta-1a is coupled to the polyethylene glycol moiety by a labile bond, wherein the labile bond is cleavable by biochemical hydrolysis and/or protcolysis.
54. **(previously presented)** An interferon-beta composition according to claims 41, wherein the polymer has a molecular weight of from about 5 to 40 kilodaltons.
55. **(previously presented)** An interferon-beta composition according to claims 49, wherein the polymer has a molecular weight of from about 5 to 40 kilodaltons.
56. **(previously presented)** A interferon-beta composition according to claims 53, wherein the polymer has a molecular weight of from about 5 to 40 kilodaltons.
57. **(previously presented)** A pharmaceutical composition comprising the interferon-beta composition of claim 54.
58. **(currently amended)** A protein comprising the amino acid sequence set forth in any one of SEQ ID NOs: 25-[[40]]56 coupled to a non-naturally-occurring polymer at the C-terminal end of said protein, said polymer comprising a polyalkylene glycol moiety.
59. **(currently amended)** A protein comprising the amino acid sequence set forth in any one of SEQ ID NOs: 25-[[40]]56 coupled to a non-naturally-occurring polymer, said polymer comprising a

polyalkylene glycol moiety, and said polymer is attached to an amino, carboxylic, hydroxyl, guanidyl, or glycan moiety of said protein.

60. **(currently amended)** A protein comprising the amino acid sequence set forth in any one of SEQ ID NOs: 25-~~[[40]]~~56 coupled to a non-naturally-occurring polymer at the N-terminal end of said protein, said polymer comprising a polyalkylene glycol moiety.
61. **(currently amended)** A method of treating multiple sclerosis in a subject comprising administering to a subject in need thereof a therapeutically effect amount of a protein comprising the amino acid sequence set forth in any one of SEQ ID NOs: 25-~~[[40]]~~56 coupled to a non-naturally-occurring polymer, said polymer comprising a polyalkylene glycol moiety.
62. **(currently amended)** A method of preparing the protein of claim 60, comprising reacting a protein with a non-naturally-occurring polymer under reductive alkylation conditions, said protein comprising the amino acid sequence set forth in any one of SEQ ID NOs: 25-~~[[40]]~~56, and said polymer comprising a polyalkylene glycol moiety and a terminal aldehyde moiety.

Remarks

Claims 41-62 are pending. Claims 41, 43, 45, 49, and 53 were amended to refer to SEQ ID NOs: 27-56. Claims 58-62 were amended to refer to SEQ ID NOs: 25-56. A substitute Sequence Listing is submitted concurrently herewith. SEQ ID NOs: 1-40 of the Sequence Listing submitted herewith are the same as those in the paper copy of the sequence listing filed on July 19, 2004. SEQ ID NO: 41 is the amino acid sequence of wild-type IFN-beta-1a, which sequence is provided in Figure 10 of the application as the sequence spanning positions Meth18-Asn183. As stated on page 9 in the brief description for Figure 10, the amino acid sequence of wild-type IFN-beta-1a corresponds to the amino acid sequence spanning positions Meth18-Asn183 of the amino acid sequence displayed in Figure 10. SEQ ID NOs: 42-56 are the amino acid sequences of interferon-beta-1a mutants A1, A2, AB1, AB2, AB3, B1, B2, C1, C2, CD1, CD2, D, DE1, DE2, and E. As described on page 16 in lines 19-29 and further on pages 28-30 of the application, the amino acid sequences of the aforementioned interferon-beta-1a mutants are the same as that of wild-type IFN-beta-1a except for certain alanine and/or serine mutations of the wild-type IFN-beta-1a amino acid sequence. The location of the alanine and/or serine mutations in the amino acid sequence for each interferon-beta-1a mutant is shown in Table 1 on page 32 of the application. Importantly, support for the claim amendments and the Sequence Listing submitted herewith can be found in the application. Therefore, no new matter has been added.

Fees

Applicants hereby authorize the Director to charge any required fee to our Deposit Account, No. 06-1448.


CONCLUSION

In view of the foregoing remarks, early and favorable consideration is respectfully solicited. The Examiner may address any questions raised by this submission to the undersigned at 617-832-1000.

155 Seaport Boulevard
Boston, MA 02210
Telephone: (617) 832-1000
Telecopier: (617) 832-7000

Date: 8/16/06

Respectfully submitted,
Foley Hoag LLP

By: 
Isabelle M. Clauss, Ph.D.
Reg. No. 47,326
Attorney for Applicants



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Pepinsky, et al.

Serial No: 10/802,540

Filed: March 16, 2004

For: *Polymer Conjugates of Interferon Beta-1A and Uses*

Examiner: Not Yet Assigned

Art Unit: 1646

Confirmation No.: 4023

Atty Docket No.: BII-008.02

CERTIFICATE OF FIRST CLASS MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail, in an envelope addressed to Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450, on August 16, 2006.


Merlin Aubourg

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

STATEMENT UNDER 37 C.F.R. § 1.821(e), (f), and (g)

Sir:

In connection with a Sequence Listing submitted concurrently herewith, the undersigned hereby states that:

1. the submission, filed herewith in accordance with 37 C.F.R. § 1.821(g), does not include new matter;
2. the content of the attached paper copy and the attached computer readable copy of the Sequence Listing, submitted in accordance with 37 C.F.R. § 1.821(c) and (e), respectively, are the same.

Respectfully submitted,
Foley Hoag LLP

By: 

Chad E. Davis, Ph.D.
Reg. No. 56,179
Agent for Applicants

155 Seaport Boulevard
Boston, MA 02210
Telephone: (617) 832-1000
Telecopier: (617) 832-7000

Date: 8/16/06



SEQUENCE LISTING

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Runkel, Laura
Brickelmaier, Margot
Whitty, Adrian
Hochman, Paula

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 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30
 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Ala Ala Ala Ala
 35 40 45
 Ala Phe Ala Ala Ala Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60
 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80
 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95
 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110
 Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125
 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140
 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
 145 150 155 160
 Thr Gly Tyr Leu Arg Asn
 165

<210> 31
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 31
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15
 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30
 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45
 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Ala
 50 55 60
 Asn Ile Ala Ser Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110

Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
145 150 155 160

Thr Gly Tyr Leu Arg Asn
165

<210> 32

<211> 166

<212> PRT

<213> Homo sapiens

<400> 32

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60

Asn Ile Phe Ala Ile Phe Ala Ala Ala Ser Ser Ser Thr Gly Trp Asn
65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110

Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
145 150 155 160

Thr Gly Tyr Leu Arg Asn
165

<210> 33

<211> 166

<212> PRT

<213> Homo sapiens

<400> 33

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80

Ala Ser Ile Val Ala Ala Leu Leu Ser Asn Val Tyr His Gln Ile Asn
 85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110

Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
 145 150 155 160

Thr Gly Tyr Leu Arg Asn.
 165

<210> 34

<211> 166

<212> PRT

<213> Homo sapiens

<400> 34

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Ala His Gln Ile Ala
 85 90 95

His Leu Ala Ala Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110

Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
 145 150 155 160

Thr Gly Tyr Leu Arg Asn
 165

<210> 35

<211> 166

<212> PRT

<213> Homo sapiens

<400> 35

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95

His Leu Lys Thr Val Leu Ala Ala Lys Leu Ala Ala Ala Asp Phe Thr
 100 105 110

Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
 145 150 155 160

Thr Gly Tyr Leu Arg Asn
 165

<210> 36

<211> 166

<212> PRT

<213> Homo sapiens

<400> 36

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Ala Ala Thr
 100 105 110

Ala Gly Ala Ala Met Ser Ala Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
 145 150 155 160

Thr Gly Tyr Leu Arg Asn
 165

<210> 37

<211> 166

<212> PRT

<213> Homo sapiens

<400> 37

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110

Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Ala
 115 120 125

Ile Ala Ala Tyr Leu Ala Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
 145 150 155 160

Thr Gly Tyr Leu Arg Asn
 165

<210> 38
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 38
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110

Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125

Ile Leu His Tyr Leu Lys Ala Ala Ala Tyr Ser His Cys Ala Trp Thr
 130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
 145 150 155 160

Thr Gly Tyr Leu Arg Asn
 165

<210> 39
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 39

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110

Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ala Ala Cys Ala Trp Thr
 130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
 145 150 155 160

Thr Gly Tyr Leu Arg Asn
 165

<210> 40

<211> 166

<212> PRT

<213> Homo sapiens

<400> 40

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110

Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140

Ile Val Arg Ala Glu Ile Leu Ala Asn Phe Ala Arg Ile Ala Arg Leu
145 150 155 160

Thr Gly Tyr Leu Arg Asn
165

<210> 41

<211> 166

<212> PRT

<213> Homo sapiens

<400> 41

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110

Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
145 150 155 160

Thr Gly Tyr Leu Arg Asn
165

<210> 42

<211> 166

<212> PRT

<213> Homo sapiens

<400> 42

Met Ala Tyr Ala Ala Leu Gly Ala Leu Gln Ala Ser Ser Asn Phe Gln
1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30
 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45
 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60
 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80
 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95
 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110
 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125
 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140
 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
 145 150 155 160
 Thr Gly Tyr Leu Arg Asn
 165

<210> 43
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 43
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Ala Ala
 1 5 10 15
 Cys Ala Ala Leu Leu Ala Ala Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30
 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45
 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60
 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80
 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95
 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110
 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
 145 150 155 160

Thr Gly Tyr Leu Arg Asn
 165

<210> 44
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 44
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Ala Ala Ala Cys Ala
 20 25 30

Ala Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110

Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
 145 150 155 160

Thr Gly Tyr Leu Arg Asn
 165

<210> 45
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 45
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30

Lys Asp Arg Ala Ala Phe Ala Ile Pro Ala Glu Ile Lys Gln Leu Gln
 35 40 45
 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60
 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80
 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95
 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110
 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125
 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140
 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
 145 150 155 160
 Thr Gly Tyr Leu Arg Asn
 165

<210> 46
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 46
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15
 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30
 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Ala Ala Ala Ala
 35 40 45
 Ala Phe Ala Ala Ala Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60
 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80
 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95
 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110
 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
 145 150 155 160

Thr Gly Tyr Leu Arg Asn
 165

<210> 47
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 47
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15
 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30
 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45
 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Ala
 50 55 60
 Asn Ile Ala Ser Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80
 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95
 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110
 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125
 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140
 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
 145 150 155 160
 Thr Gly Tyr Leu Arg Asn
 165

<210> 48
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 48
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15
 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45
 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60
 Asn Ile Phe Ala Ile Phe Ala Ala Ala Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80
 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95
 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110
 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125
 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140
 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
 145 150 155 160
 Thr Gly Tyr Leu Arg Asn
 165

<210> 49
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 49
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15
 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30
 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45
 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60
 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80
 Ala Ser Ile Val Ala Ala Leu Leu Ser Asn Val Tyr His Gln Ile Asn
 85 90 95
 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110
 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125
 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
 145 150 155 160

Thr Gly Tyr Leu Arg Asn
 165

<210> 50
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 50
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15
 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30
 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45
 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60
 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80
 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Ala His Gln Ile Ala
 85 90 95
 His Leu Ala Ala Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110
 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125
 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140
 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
 145 150 155 160
 Thr Gly Tyr Leu Arg Asn
 165

<210> 51
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 51
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15
 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30
 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60
 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80
 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95
 His Leu Lys Thr Val Leu Ala Ala Lys Leu Ala Ala Ala Asp Phe Thr
 100 105 110
 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125
 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140
 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
 145 150 155 160
 Thr Gly Tyr Leu Arg Asn
 165

<210> 52
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 52
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15
 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 20 25 30
 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45
 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 50 55 60
 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80
 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95
 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Ala Ala Thr
 100 105 110
 Ala Gly Lys Ala Met Ser Ala Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125
 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 130 135 140
 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
 145 150 155 160

Thr Gly Tyr Leu Arg Asn
165

<210> 53
<211> 166
<212> PRT
<213> Homo sapiens

<400> 53
Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
1 5 10 15
Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
20 25 30
Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
35 40 45
Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
50 55 60
Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
65 70 75 80
Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
85 90 95
His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
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Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Ala
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Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
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 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 35 40 45
 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
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 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 65 70 75 80
 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 85 90 95
 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 100 105 110
 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125
 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ala Ala Cys Ala Trp Thr
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 35 40 45
 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
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 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
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 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
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 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 115 120 125
 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
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Exhibit B

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number:

10/802,540A

Source:

IFW/6

Date Processed by STIC:

8/22/06

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 08/25/2006

PATENT APPLICATION: US/10/802,540A

TIME: 12:04:38

Input Set : N:\SSLM\J802540.raw

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1 <110> APPLICANT: Pepinsky, Blake
2   Runkel, Laura
3   Brickelmaier, Margot
4   Whitty, Adrian
5   Hochman, Paula
6 <120> TITLE OF INVENTION: Polymer Conjugates of Interferon Beta-1a and Uses
7 <130> FILE REFERENCE: BII-008.02
8 <140> CURRENT APPLICATION NUMBER: US/10/802,540A
C--> 9 <141> CURRENT FILING DATE: 2004-03-26
10 <150> PRIOR APPLICATION NUMBER: 09/832,658
11 <151> PRIOR FILING DATE: 2001-04-11
12 <150> PRIOR APPLICATION NUMBER: PCT/US99/24201
13 <151> PRIOR FILING DATE: 1999-10-15
14 <150> PRIOR APPLICATION NUMBER: 60/104,572
15 <151> PRIOR FILING DATE: 1998-10-16
16 <150> PRIOR APPLICATION NUMBER: 60/120,161
17 <151> PRIOR FILING DATE: 1999-02-16
18 <160> NUMBER OF SEQ ID NOS: 56
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28   ttgaatggga ggcttgaata ctgcctcaag gacaggatga actttgacat ccctgaggag      180
29   attaagcagc tgcagcagtt ccagaaggag gacgccgcat tgaccatcta tgagatgctc      240
30   cagaacatct ttgctatctt cagacaagat tcatctagca ctggctggaa tgagactatt      300
31   gttgagaacc tcctggctaa tgtctatcat cagataaacc atctgaagac agtcctggaa      360
32   gaaaaactgg agaaagaaga tttcaccagg ggaaaactca tgagcagtct gcacctgaaa      420
33   agatattatg ggaggattct gcattacctg aaggccaagg agtacagtca ctgtgcctgg      480
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44   Lys Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/802,540A

DATE: 08/25/2006

TIME: 12:04:38

Input Set : N:\SSLM\J802540.raw

Output Set: N:\CRF4\08252006\J802540A.raw

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48   Leu Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu
49           50           55           60
50   Gln Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu
51           65           70           75           80
52   Gln Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp
53           85           90           95
54   Asn Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile
55           100          105          110
56   Asn His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe
57           115          120          125
58   Thr Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly
59           130          135          140
60   Arg Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp
61           145          150          155          160
62   Thr Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg
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64   Leu Thr Gly Tyr Leu Arg Asn
65           180
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/802,540A

DATE: 08/25/2006

TIME: 12:04:38

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Output Set: N:\CRF4\08252006\J802540A.raw

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/802,540A

DATE: 08/25/2006

TIME: 12:04:38

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Output Set: N:\CRF4\08252006\J802540A.raw

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164 <211> LENGTH: 72
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166 <213> ORGANISM: Homo sapiens
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187 <211> LENGTH: 69
188 <212> TYPE: DNA
189 <213> ORGANISM: Homo sapiens
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195 <211> LENGTH: 51
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201 <210> SEQ ID NO: 21
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/802,540A

DATE: 08/25/2006

TIME: 12:04:38

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Output Set: N:\CRF4\08252006\J802540A.raw

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227 <212> TYPE: DNA
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239   Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
240       20             25             30
241   Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
242       35             40             45
243   Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
244       50             55             60
245   Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Thr Gly Trp Asn
246       65             70             75             80
247   Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
248       85             90             95
249   His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
250       100            105            110
251   Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
252       115            120            125
253   Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
254       130            135            140
255   Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
256       145            150            155            160
257   Thr Gly Tyr Leu Arg Asn
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262 <212> TYPE: PRT
263 <213> ORGANISM: Homo sapiens
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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/802,540A

DATE: 08/25/2006

TIME: 12:04:39

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L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date

STATISTICS SUMMARY

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DATE: 08/25/2006

TIME: 12:04:39

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Application Serial Number: US/10/802,540A

Alpha or Numeric or Xml: Numeric

Application Class:

Application File Date: 03-26-2004

Art Unit: IFW16

Software Application: PatentIN3.2

Total Number of Sequences: 56

Total Nucleotides: 1927

Total Amino Acids: 5495

Number of Errors: 0

Number of Warnings: 0

Number of Corrections: 1

MESSAGE SUMMARY

271 C: 1 (Current Filing Date differs)